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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,081	07/10/2001	Richard E. Demaray	M-11522 US	1225

7590

02/12/2004

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EXAMINER

HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/903,081

Applicant(s)

DEMARAY ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16Jan 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 are is/are pending in the application.
- 4a) Of the above claim(s) 1-13, 21-23 and 28 are is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-20, 24-27 and 29 is/are rejected.
- 7) ☒ Claim(s) 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/10/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Election/Restrictions

Applicant's election of Group II, Specie A in Paper No. of 16 Jan 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1-~~14~~⁷, 21-23, and 28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. of 16 Jan 2004.

Information Disclosure Statement

Not all of the references on the 1449-form have been considered. It is indicated on the 1449 as to why those individual references were not considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-19, 24-25,, 27, 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis for "the first frequency" of claim 17

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It is unclear if "radiofrequency" (one word) is different from "radio frequency" used in the specification. Claims 15-19, 24-25 and 29 use the one word variation.

Claim 27: there is confusing antecedent basis for "ridge structure". There is incomplete antecedent basis for "the silicon" - it is unclear if such requires all of the silicon to be oxidize, or just a portion thereof.

Claim 29: there is no antecedent basis for "the process": second to last line. Line 6, it is unclear if the radiofrequency power if this is the same power as that of line 5: there is confusing antecedent basis for this power.

Claim Objections

Claim 27 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 14 requires forming a ridge structure in a layer in the first material having a refractive index. Claim 27 does not form a ridge structure in the first material (i.e. the glass) - rather it forms the structure in a different material (silicon) which is then converted into the first material. Claim 27 is outside the scope of claim 14. It does not further limit claim 14, but rather it takes it to a completely exclusive scope.

Claim 27 is not further treated on its merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 14, 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawaguchi 6605228.

Figures 7a-7e and col. 5, line 63- col 6, 28 discloses the invention: 12a points to the ridge structure. Figure 7B represents the depositing of the core layer. Fig 7e shows the depositing of the upper cladding layer. Col. 6, lines 3-8, 21-23 disclose the refractive indices. Col. 6, lines 17-18 discloses using polishing rather than etching to remove some material: this polishing is deemed to be the exclusion of etching.

Claim 17: it is deemed that RF power is inherently applied, due to nearby radio stations or from naturally occurring phenomena. As to "the first frequency": light is at a frequency that is much larger than the second frequency. (Note the 112 rejection above).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-16, 24-26, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawaguchi as applied to claim 14 above, and further in view of Klein 3850604.

Kawaguchi discloses using sputtering for forming the core (col. 4, line 20) but not any of the specifics. One of ordinary skill knows all of the specifics. Klein is cited as being evidence as to what one of ordinary skill thinks of when one is to sputter glass. Col. 4, lines 3-15 of Klein discloses the typical sputtering operation. Alternatively, it would have been obvious to use the Klein apparatus/method because it is "typical" and one would expect a typical way to be more reliable, accessible, universally usable and robust than any atypical method/apparatus.

As to the uniform plasma condition, see col. 4, lines 30-38 of Klein.

Claim 24: see Kawaguchi, col. 4, lines 12-21 and col 6, lines 21-27. It would have been obvious to use the same sort of deposition technique/apparatus for the top layer because it would require extra equipment to do it by another means.

Claims 16, 29 and 25: See col. 4: line 16-18 of Klein which discloses that ions impacting the target creates heat. Heat is a form of power. The power is generated from the application of RF. In other words it is power that was converted from an RF source. The claims do not require that the power be electrical or anything else.

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Alternatively since both anodes are connected to the ground, the RF power is applied to both. The claims do not differentiate between the two powers.

Claim 26: Since Kawaguchi does the same thing applicant does, one would expect the same surface roughness.

Allowable Subject Matter

Claims 18-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

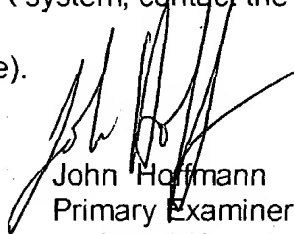
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Farah, Nourshargh, Kaminow, Atkins, Tumminelli, Makikawa, Dawes and Collins are cited as being directed as being directed to the disclosed and/or claimed invention. The present claims are broad and at least claim 14 could have been rejected in view of any number of references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272-1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Hoffmann
Primary Examiner
Art Unit 1731

2-6-04

jmh